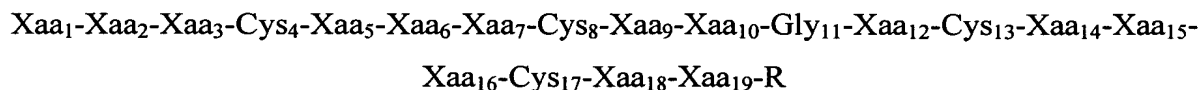


AMENDMENTS TO THE CLAIMS

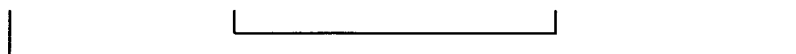
1. (Original) A method of inhibiting metastasis of a tumor cell in a mammal, wherein the tumor cell expresses CXC Chemokine Receptor-4 (CXCR4), which method comprises administering to the mammal in an amount sufficient to inhibit metastasis of the tumor cell a polypeptide of the formula:



(SEQ ID NO: 1)

wherein, each of Xaa₁, Xaa₂, and Xaa₁₉ is optionally a part of the polypeptide,
 wherein, when Xaa₁ is a part of the polypeptide, Xaa₂ is part of the polypeptide,
 wherein each of Xaa₃, Xaa₅, Xaa₉, Xaa₁₂, and Xaa₁₄ is an amino acid selected from the group consisting of Tyr, Phe, and Trp,
 wherein each of Xaa₁, Xaa₂, Xaa₆, Xaa₇, Xaa₁₀, Xaa₁₅, Xaa₁₆, Xaa₁₈, and Xaa₁₉ is an amino acid selected from the group consisting of Arg and Lys,
 wherein R is -OH or -NH₂,
 wherein Cys₄ is optionally disulfide bonded to Cys₁₇, and
 wherein Cys₈ is optionally disulfide bonded to Cys₁₃.

2. (Original) The method of claim 1, wherein the polypeptide is T22:
 Arg-Arg Trp-Cys-Tyr-Arg-Lys-Cys-Tyr-Lys-Gly-Tyr-Cys-Tyr-Arg-Lys-Cys-Arg



(T22; SEQ ID NO: 2).

3. (Original) The method of claim 1, wherein the tumor cell can metastasize to an organ and the organ comprises cells expressing Stromal Derived Factor-1 (SDF-1).

4. (Original) The method of claim 3, wherein the organ is the skin, liver, or brain.

5. (Original) The method of claim 3, wherein the organ is the lung.

6. (Original) The method of claim 1, wherein the tumor cell is a breast cancer cell, a breast tumor cell, a lymphoma cell, a neuroblastoma cell, a lung cancer cell, an angiosarcoma cell, a pancreatic cancer cell, a leukemia cell, or a prostate cancer cell.

7. (Original) The method of claim 1, wherein the tumor cell is a melanoma cell.

8. (Original) The method of claim 7, wherein the polypeptide is administered to the mammal intraperitoneally.

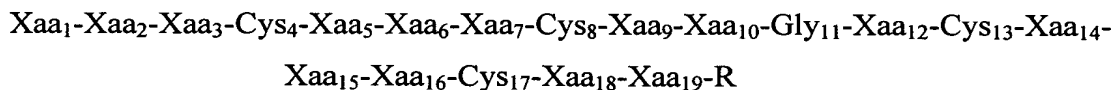
9. (Original) The method of claim 1, wherein the polypeptide is administered to the mammal daily.

10. (Original) The method of claim 9, wherein the polypeptide is administered to the mammal daily for at least 2 days.

11. (Original) A method of inhibiting metastasis of a tumor cell in a mammal, wherein the tumor cell expresses a CXCR4, which method comprises administering to the mammal in an amount sufficient to inhibit metastasis of the tumor cell an antagonist of CXCR4, wherein the antagonist of CXCR4 is not an antibody that binds to CXCR4.

12.-35. (Cancelled)

36. (Original) A method of inhibiting growth of a tumor cell, wherein the tumor cell expresses CXCR4 and the growth is stimulated by SDF-1, which method comprises administering to the tumor cell in an amount sufficient to inhibit the growth of the tumor cell a polypeptide of the formula:



(SEQ ID NO: 1)

wherein, each of Xaa₁, Xaa₂, and Xaa₁₉ is optionally a part of the polypeptide, wherein, when Xaa₁ is a part of the polypeptide, Xaa₂ is part of the polypeptide,

wherein each of Xaa₃, Xaa₅, Xaa₉, Xaa₁₂, and Xaa₁₄ is an amino acid selected from the group consisting of Tyr, Phe, and Trp,

wherein each of Xaa₁, Xaa₂, Xaa₆, Xaa₇, Xaa₁₀, Xaa₁₅, Xaa₁₆, Xaa₁₈, and Xaa₁₉ is an amino acid selected from the group consisting of Arg and Lys,

wherein R is -OH or -NH₂, and

wherein Cys₄ is optionally disulfide bonded to Cys₁₇ and Cys₈ is optionally disulfide bonded to Cys₁₃.

37. (Original) The method of claim 36, wherein the polypeptide is T22:

Arg-Arg Trp-Cys-Tyr-Arg-Lys-Cys-Tyr-Lys-Gly-Tyr-Cys-Tyr-Arg-Lys-Cys-Arg
(T22; SEQ ID NO: 2).

38. (Original) The method of claim 36, wherein the tumor cell is a breast cancer cell, a breast tumor cell, a lymphoma cell, a neuroblastoma cell, a lung cancer cell, an angiosarcoma cell, a pancreatic cancer, a leukemia cell, or a prostate cancer cell.

39. (Original) The method of claim 36, wherein the tumor cell is a melanoma cell.